

## SEQUENCE LISTING

&lt;110&gt; CARGILL, INCORPORATED

&lt;120&gt; NOVEL NUCLEIC ACIDS FROM SESAME PLANTS

&lt;130&gt; CGL02.0273US01

&lt;150&gt; PCT/US04/24858

&lt;151&gt; 2004-07-29

&lt;160&gt; 9

&lt;170&gt; PatentIn version 3.3

&lt;210&gt; 1

&lt;211&gt; 2400

&lt;212&gt; DNA

&lt;213&gt; Sesamum inidicum L.

&lt;400&gt; 1

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| atatgtrtgc  | cggcattaac  | actgttcggt | gaaaggattt | ggagaagaag  | gaaaragaat | 120  |
| ataattcatt  | ggtgaagaaa  | ataatgagga | aacaagttcc | acgtggaaaa  | gaaaataaaa | 180  |
| agaatatccg  | cggaaactta  | aatttacggc | tgaagaaaac | ctgagatcag  | aaatctcgta | 240  |
| tggaaagtgc  | cgctcatcgc  | accaccggaa | ttatttcccg | gccgatgctg  | cgtctgcaca | 300  |
| tagctgagat  | tatcatcatt  | ccatagctt  | catcatcaac | ggaaagaaaat | attgaaaaag | 360  |
| aatcgacttt  | ggtgaaaaaa  | caacacacga | tacgaagcaa | taatacatat  | gactataaat | 420  |
| caaaatttcac | atatgacgga  | cagttctaca | gaacaaaaag | gaatatgtag  | ccttggaggc | 480  |
| aagtgcaga   | aaaggcgatg  | ttaatgccag | agttccactc | tgccggttctt | gacggcataa | 540  |
| ttgaagattt  | aaagggcttt  | tataataatg | ttggccgttg | ccctaattcc  | caaatggcg  | 600  |
| ccgcaccgc   | tgtttggatt  | cagaatccca | atggaaactt | ctttcttttt  | ttccctctta | 660  |
| ttttttag    | ttctcccatt  | tgagaagaaa | atgataagtt | acatcccgt   | agttaatttt | 720  |
| ttttatgatt  | ttagtgtcct  | tgtatttaa  | ttcaccacat | tgcattttat  | aattttgaaa | 780  |
| acttttattt  | tagttcaaaa  | tcttaataat | cgttaagttt | tttataaaaa  | cgactcgtgt | 840  |
| atgaaatgct  | cttccttaag  | tttgagggg  | aatgaaagtt | gttttgctt   | gaaattaaat | 900  |
| aaaactaaga  | cttgatattt  | aaattataat | tttcttgaag | ttatattata  | cactgtggcg | 960  |
| agttaaaaaaa | taataaaaatc | aaaatgacga | agatgctaac | ttatggatg   | taaatgcaat | 1020 |
| tctttcatat  | taatgcaaac  | tgttaatatt | gcacaaatct | ctgtgtcggt  | tcacctataa | 1080 |

|             |             |             |            |             |             |      |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| tgtgttggaaa | ctttaaaata  | ttatatttat  | tttattgaat | tcctaataa   | acaaatttgg  | 1140 |
| tataatcaat  | ggctcggtcc  | aaacacaatc  | actctgttag | atataatttg  | aaacctagaa  | 1200 |
| aagtatattt  | ttcttataa   | tagatattat  | agataacaaa | ctataagttt  | cagaataatg  | 1260 |
| ctagtagtag  | tggtgattac  | caaatactgaa | tatgaagata | gaactatatt  | tgcaacataa  | 1320 |
| ttttgatagt  | ataaaattat  | attcatgaca  | aagtcttagg | agtttcattt  | atttgatttt  | 1380 |
| gggagttcaa  | ttacaataa   | caagtgagga  | ggggtgtgat | gaatggatca  | aatttgggaa  | 1440 |
| gttggggc    | tccatccact  | tgaaaccctg  | tcatccattc | tattgacattt | ttgaagtgtat | 1500 |
| tgtagttgtt  | gtgctttagt  | aggcacttat  | cacatgccat | tgagttcaaa  | aagagaaaaaa | 1560 |
| ttgcgtcaca  | tgttgtccat  | gtctacaatg  | ctttataaag | ctaaattgaa  | tgggttgata  | 1620 |
| aacaagttag  | actagaaattt | aatggatttt  | tccttcggtt | ttatagggaa  | ttgaattttc  | 1680 |
| tattgtatat  | tactttatg   | agtataattt  | gtcttgaaa  | taaatttaggt | aatgtaatata | 1740 |
| ttgttagttat | gttaaatgaa  | ataaaagata  | taataatctt | taaaataattt | ttttgctta   | 1800 |
| tgttgttaat  | gatgcaactt  | tattcttctt  | ttttataaag | cacacaccca  | attcaaaccc  | 1860 |
| aagatcttg   | atatgcagtt  | ttgagcccaa  | actgtggaac | tgtccttgaa  | gctaaagatg  | 1920 |
| catcaaggaa  | acttaaaca   | gagttagagg  | tataattgtt | gagttgtat   | atgctaataa  | 1980 |
| ctcattattt  | tagttgtct   | cctccatgaa  | taaggatgtc | ttttatgacc  | agctcaattt  | 2040 |
| ctgttaattt  | gccattaaag  | tttcctttag  | cactrgttca | gacacttacg  | agaaagagaa  | 2100 |
| acatttgtg   | tttagaggaac | taatattaat  | taaactagat | ccaaaagaga  | agttctaaaa  | 2160 |
| aattcaagtc  | ctctgtttt   | gcaacatctg  | catgtagaca | tcgatgtgaa  | agctcgaaaa  | 2220 |
| cgccagcctc  | agtccccctca | gcaaaaccccg | tccacccatc | tctccatca   | atcaacacgt  | 2280 |
| aaaagccatg  | cacccgcaca  | aaaccactat  | aaatccccct | tcaaaccctt  | ccaccattct  | 2340 |
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| ttcatgatgg | aaagccgctg | tctgattcct | ccattatact | ggagtacgtc | gatcagaaat | 120 |
| ggaggtccaa | cccttgg    | cccgacgatc | cctaccaaag | agcccaagcc | cacttatgg  | 180 |

|   |      |
|---|------|
| ctagatttgc cgatgagaag gtacatggga taaaatactt ttgcttctat atatatttga   | 240  |
| tgactaataa aattacgtga attcttattc ggtttagaaa atttcatgcc gtagagataa   | 300  |
| tatgtgatcc taatcataca atgtaatgac accagataac tactctgagc atataaattc   | 360  |
| cgttgcattc caggttcttg aatcagcatg gcttgcctc tgttcggaaag gaaagacgca   | 420  |
| ggagagagca gtgaaacaag ccattgagaa cctggaacat gtcgaagaga agctgaaagg   | 480  |
| gaagaggttc ttccggagggg acataattgg gcatgtggac ctaatgatgg gcttcgttcc  | 540  |
| ctacatgttgc cctgtttggg aagaggttgc cggagtgaaa atcctggatc cccacaaatt  | 600  |
| cccagctata gctgcctgga cgaataattt cctcaatcat gaagccatca aggctgaata   | 660  |
| tttgcaccc actgctgaga ctttcaccta tttccagtgg cgacgaaaag aattaattcc    | 720  |
| tgtctatgcc tcttatggac agtagatggt gtaatcaaca aaagtcggaa tagagaatct   | 780  |
| gaggctgtat tagaggataa atcgaagtcc aattcattgg actgagtagc aggtttttaa   | 840  |
| gcgttgaat ttcttgaagc agtacatctg cctgtatttag tacagaggat ccgtgcacca   | 900  |
| aaaatcttat ccacccaaaa agatctcctt tttatataaa tcttgcacgc cccgtcttcc   | 960  |
| ttattataat tgttcgttta gaattttcag tattttggaa aagtatttag tattgtttgt   | 1020 |
| tgtcagttta aaattttctt agttaactaaa ttatttcaa tattttactt taatttggtg   | 1080 |
| tgtttatata atttcatatt tatttgagat ttatgatcca ttattataat catttaatta   | 1140 |
| taaatatatg aagtttaata agtatttagc ctttacgact tacatattca tatggcttt    | 1200 |
| tatagttaaa tttatcatga ttttataagt ttttatttagg ccacttaact ttttgcatt   | 1260 |
| gc当地attcg ttacaactac tttgtcatta ctttttact tcagcacgtt gagaaggaa      | 1320 |
| gccttcgtat gattttcaa agtacttctt acattttac tagtgcgttga gagtttggc     | 1380 |
| aacgtgacta tggattggtc attgtctcct cattctcatg ccttagagtca tagccaatca  | 1440 |
| ttaatacacc aagtaggaag tcaatcataa ctttaagaaa gtgacaagac tttattcgaa   | 1500 |
| attaaattat taatatttgc acacaaacta taaaaataa aatttatttt ttgagtaaaa    | 1560 |
| gtatttagata atattttat taaatagtaa attaattta aaattaaaat tatttacact    | 1620 |
| cgagataaat tgcagcagct attaatttt ttttaatttgc aattttattt attaaatttt   | 1680 |
| tacaaatatt ttaataaact tcgaccataa attataagaa ataaaaattt aaaaactaaa   | 1740 |
| gaaatttat ttaataataa ataaaaataa gtttataact tataattata tttattttta    | 1800 |
| gataacttct aacatatttt aattattttt aaaattacat attattttt ctaaaaaat     | 1860 |
| ttaataaact ttgacaaaaga aaaagtaaaa aataaaaattt tattttattt ctacaattta | 1920 |

|   |      |
|---|------|
| tctacaatgt aaataattat aatttaaaaa ttatttaata aaaagtttat ctaatacttt   | 1980 |
| tattcaaaaa taaattctac tttttatagt ttgtgctcac atattaatat attttttagac  | 2040 |
| caaataataa tttaatttca aaaatagtat aatagatcct agaaattatc taaaaataaa   | 2100 |
| ataattataa ttttagaacc attttattat atatattaaa atataatttt tttaatattt   | 2160 |
| ctattttgt aaaaataaaa attcttata tag tttgtggcca aagttggtca aaatattttt | 2220 |
| tttctttta atggtaactta aaaaacacgt ttctttatt ttttgttacc tttaatagg     | 2280 |
| tatttgaagt tcaaagtcat gtagtcaat agaagttac taccgttaac ggccacgtgc     | 2340 |
| gggacacatg gcctctgttg ttaacttggg acaaaaaagt atgtttttg tgttttatag    | 2400 |
| tacccaaagt gacacttgcc acaattatgg tacccaaat aaaatcaact tttttaacg     | 2460 |
| gaatcaaaaa aaaaaaattt tgcccttaca taatatatgt actaatcaac ggattgaatt   | 2520 |
| ttctattgtat atattcattt cattttctat ttcttcaac atatacaatt atgtatattt   | 2580 |
| gaacgaaatc atatattta tttgaaaaaa taaaaaaaaaa ttaacacatg ctatgtat     | 2640 |
| attgattgtat ataaaaaaaata aaataattaa aatttgcac aatgcacatc caaccaaaca | 2700 |
| taatcgccac atacccatta ggtgtaagca gagcagcatt tccatacatg caacccatg    | 2760 |
| atgatcataa caaaacaaaaa gcccatgcac aatagatacc gccaaatgtc gctcgttct   | 2820 |
| caccatctca cactcgacgt gtcgacctca acccaccaat ttcaactata aatccccacc   | 2880 |
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<220>  
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| <210> 5                                  |  |    |
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| <220>                                    |  |    |
| <223> Primer                             |  |    |
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| <211> 12                                 |  |    |
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| <400> 9                                  |  |    |
| aatattttta tt                            |  | 12 |